VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTH CENTRAL REGIONAL OFFICE

FACT SHEET
FOR PROPOSED PERMITTING ACTION
UNDER 9 VAC 5 Chapter 80 Article 1 (TITLE V-CLEAN AIR ACT)

APPLICANT:

VA-30121 AIRS ID 51-031-0101

INTERMET Archer Creek Foundry
P.O. Box 11589
Lynchburg, VA 24506

FACILITY LOCATION:

Mt. Athos Road, Campbell County
UTM Coordinates are ZONE: 17, EASTING: 671.9 km, NORTHING: 4141.4 km

FACILITY DESCRIPTION:

INTERMET Archer Creek Foundry is a manufacturer of gray and ductile iron parts for the automotive and other industries from scrap metal and foundry returns and is covered by Standard Industrial Classification (SIC) Code 3321. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. The facility is permitted to melt 299,400 tons of metal per year.

EMISSIONS SUMMARY:

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]	
CRITERIA POLLUTANTS	POTENTIAL EMISSIONS
Particulate Matter (PM10)	498.1
Nitrogen Oxides (NO_x)	79.2
Sulfur Dioxide (SO_2)	20.3
Carbon Monoxide (CO)	34.8
Volatile Organic Compounds (VOC)	130.9

TITLE V PROGRAM APPLICABILITY BASIS:

This facility has the potential to emit 498 tons per year of PM-10 and 131 tons per year of VOC. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, INTERMET Archer Creek Foundry is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1.

APPLICABLE REGULATIONS/EXISTING PERMITS:

The vast majority of the equipment located at this facility is covered by a permit dated August 19, 2002.

No. 2 fuel oil tank

A 20,000 gal fuel oil tank was installed in 1993. This tank was exempt by size from state permitting (ie., < 40,000 gal). The tank is subject to NSPS Kb. However, due to its construction date, size and vapor pressure of the material stored, the only applicable requirements from the subpart are recordkeeping requirements. These applicable requirements are included in the current Title V permit.

Core making operations

The equipment identification numbers for the eleven core making machines as shown in the 8/19/02 permit has been changed by the applicant in the Title V permit application. The translation is as follows:

6/29/00 ID No.	Title V ID No.
524	ACE26
531	ACE27
547	ACE28
584	ACE29
2600	ACE30
2606	ACE31
2608	ACE32
2612	ACE33
2613	ACE34
J92-1	ACE35

Fuel burning equipment

Fuel burning equipment is permitted in the 8/19/02 permit on a facility wide basis, with the approved fuels being natural gas, propane, and distillate oil. Condition 6 of the 8/19/02 permit included language that considered the cupolas, which are fired on coke, as process equipment rather than fuel burning equipment and specifically excluded the cupolas from the equipment limited to natural gas, propane, and distillate oil. The current Title V permit clarifies that the cupola preheater (ACE03) is considered fuel burning equipment, but that the cupolas (ACE02) are not.

PERIODIC MONITORING:

Fuel Burning Equipment (ACE03 and ACE10)

Periodic monitoring requirements from the fuel burning equipment (ACE03 and ACE10) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Charge Preparation Operation (ACE01)

Periodic monitoring requirements from the charge preparation operation (ACE01) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Cupolas (ACE02) including the Cupola Particulate Conditioning System (ACE04)

Periodic monitoring requirements for particulate matter from the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filter (ACDC02). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Periodic monitoring requirements for CO and VOC are based on continuously measuring and recording the outlet temperature of the combustor (ACC01). A low temperature alarm is present to indicate attention to the combustor (ACC01) may be required to remain in compliance with the hourly CO and VOC emission limit.

In addition, the permittee will be required to perform stack tests on the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) at least once during the life of this permit, but not to exceed once every 5 years, to demonstrate compliance with the hourly emission limits.

Metal Treatment Operations (ACE05 through ACE09)

Periodic monitoring requirements for particulate matter from the metal treatment operations (ACE05 through ACE09) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filter (ACDC03). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

In addition, the permittee will be required to perform stack tests on metal treatment operations (ACE05 through ACE09) at stack (ACDC03) at least once during the life of this permit, but not to exceed once every 5 years, to demonstrate compliance with the PM and PM-10 emission limits.

Mold Pouring Operations (ACE12 and ACE13)

Periodic monitoring requirements for the mold pouring operations (ACE12 and ACE13) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Mold Cooling Operations (ACE14 and ACE15)

Periodic monitoring requirements for the mold cooling operations (ACE14 and ACE15) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filters (ACDC12 and ACDC13). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Mold Punchout / Shakeout Operations (ACE16 through ACE19)

Periodic monitoring requirements for the mold punchout / shakeout operations (ACE16 and ACE19) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filters (ACDC12 and ACDC13). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Castings Finishing Operations (ACE20 through ACE23)

Periodic monitoring requirements for the castings finishing operations (ACE20 through ACE23) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filters (ACDC06 and ACDC11). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Core Making Operations (ACE26 through ACE35 & ACE37 and ACE38)

Periodic monitoring requirements for the core making operations (ACE26 through ACE35 & ACE37 and ACE38) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

In addition, since emissions from core machine (ACE35) are controlled by a packed tower (ACC16), the permittee is required to monitor the flow rate of the scrubbing solution, the pH of the scrubbing solution, and the differential pressure across the packed bed.

Mold Sand and Core Sand Handling Systems (ACE24A, ACE24B, ACE25A1, ACE25A2, ACE25B1, and ACE25B2)

Periodic monitoring requirements for the mold sand and core sand handling systems (ACE24A, ACE24B, ACE25A1, ACE25A2, ACE25B1, and ACE25B2) are based on observation of the presence or absence of visible emissions and monitoring the differential pressure of the fabric filter (ACDC05). In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Used/Waste Sand and Baghouse Dust Storage and Load-out System (ACE47 through ACE53)

Periodic monitoring requirements for the used/waste sand and baghouse dust storage and load-out system (ACE47 through ACE53) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Cupola Slag Processing Operation (ACE54 through ACE58)

Periodic monitoring requirements for the cupola slag processing operation (ACE54 through ACE58) are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective actions do not result in the absence of visible emissions, VEE's are required to demonstrate compliance with the applicable opacity limit.

Facility

A weekly, facility wide visual survey for visible emissions is required by the current Title V permit. The facility wide visual emission survey should include emissions from non-powered vents and openings in buildings. For each location identified in the survey as having visible emissions, the permittee is required to take corrective action on the source of emissions, or to perform VEEs in accordance with 40 CFR 60, Appendix A, Method 9 to assure compliance with the relevant opacity standard. The permittee is required to keep a log including a description of each survey, a description of any VEEs performed, and any corrective action taken.

EMISSION LIMITS

1. For PM, the periodic monitoring requirement is considered satisfied by the visual survey and follow-up as described above. Additionally, stack testing is required at the cupola fabric filter exhaust and the metal treatment fabric filter exhaust.

2. For the following listed equipment and pollutants, emission limits are based on current standard emission factors from AP-42 and from Source Classification Codes, and these factors are applied to the emission units operating at capacity.

- NO_x, CO, and VOC from stationary, gaseous fuel-fired fuel burning equipment,
- SO_2, NO_x, and CO from distillate oil fired fuel burning equipment,
- Lead from the cupolas,
- VOC from metal treatment operations, and
- SO_2, NO_x, and VOC from mold pouring operations.

3. For the following listed equipment and pollutants, emission limits are based on emission factors derived from stack testing at the Archer Creek facility, and these factors are applied to the emission units operating at capacity.

- SO_2, NO_x, CO, and VOC from the cupolas, and
- VOC from punchout/shakeout operations.

Emissions testing on the cupolas at a frequency of once a permit term is required to show compliance with the hourly emissions limits. Emissions testing on the metal treatment operation fabric filter stack at the same frequency is required for PM and PM-10 as well. In addition to stack testing for the cupolas, the permit requires that the permittee measure and record combustor outlet temperature, and install a low temperature alarm device. Temperature is considered indicative of proper operation and will indicate compliance status after stack testing has been conducted.

4. The controlled emissions of VOC from the core making operations were successfully determined to be in compliance by testing. Also, the scrubber that controls these emissions is required by the permit to be equipped with a flow meter and pH meter for the scrubbing solution, and a differential pressure measuring device for the exhaust stream. The flow and pressure measuring devices are required to include out of range alarms. Therefore, the periodic monitoring requirements for VOC from the core making operations are considered satisfied.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the Commonwealth of Virginia Federal Operating Permit Regulations for the purposes of Title V of the Federal Clean Air Act (9 VAC 5 Chapter 80 Article 1), and underlying applicable requirements in other state and federal rules. Applicable requirement means all of the following as they apply to emission units in a Title V source:

a. Any standard or other requirement provided for in the State Implementation Plan or the Federal Implementation Plan, including any source-specific provisions such as consent agreements or orders.

b. Any term or condition of any preconstruction permit or of any operating permit issued pursuant to 9 VAC 5 Chapter 80 Article 5, except for terms or conditions

derived from applicable state requirements or from any requirement of these regulations not included in the definition of applicable requirement.

c. Any standard or other requirement prescribed under these regulations, particularly the provisions of 9 VAC 5 Chapter 40 (9 VAC 5-40-10 et seq.), 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) or 9 VAC 5 Chapter 60 (9 VAC 5-60-10 et seq.), adopted pursuant to requirements of the federal Clean Air Act or under ' 111, 112 or 129 of the federal Clean Air Act.

d. Any requirement concerning accident prevention under ' 112(r)(7) of the federal Clean Air Act.

e. Any compliance monitoring requirements established pursuant to either ' 504(b) or ' 114(a)(3) of the federal Clean Air Act or these regulations.

f. Any standard or other requirement for consumer and commercial products under ' 183(e) of the federal Clean Air Act.

g. Any standard or other requirement for tank vessels under ' 183(f) of the federal Clean Air Act.

h. Any standard or other requirement in 40 CFR Part 55 to control air pollution from outer continental shelf sources.

i. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the federal Clean Air Act, unless the administrator has determined that such requirements need not be contained in a permit issued under this article.

j. With regard to temporary sources subject to 9 VAC 5-80-130, (i) any ambient air quality standard, except applicable state requirements, and (ii) requirements regarding increments or visibility as provided in Article 8 (9 VAC 5-80-1700 et seq.) of this part.

k. Any standard or other requirement of the acid deposition control program under Title IV of the Clean Air Act or the regulations promulgated thereunder.

l. Any standard or other requirement governing solid waste incineration under ' 129 of the Clean Air Act.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 9 VAC 5 Chapter 80 Article 1 or the applicable requirement upon which it is based.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal-operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

REQUEST FOR VARIANCES OR ALTERNATIVES:

None

COMMENT PERIOD:

The public notice is scheduled to appear in the Lynchburg NEWS & ADVANCE on 7/17/01.

Beginning Date: 7/17/01
Ending Date: 8/17/01

All written comments should be addressed to the following individual and office:

Matthew D. Biesterveld, P. E.
Environmental Engineer
Department of Environmental Quality
South Central Regional Office
7705 Timberlake Road
Lynchburg, VA 24502
Phone: (434) 582-5120 Fax: (434) 582-5125

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During the public comment period any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for a public hearing shall be in writing to the above address and shall state the nature of the issues proposed to be raised in the hearing. The Director shall grant such a request for a hearing if he concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.